

ABSTRACT

Network Measurement Method and Apparatus

- 5 The apparatus measures timing variations, such as the jitter or wander in a timing signal (100) of a telecommunications network. A recovered clock signal is sampled and digitised to produce a series of digital clock samples which are then processed (135) with reference to a local digital reference signal to produce digital baseband frequency in-phase (I) and quadrature (Q) components (165, 170) these being further processed
- 10 (145) to produce the digital phase information of said clock signal to determine (175) the required parameters of the network. The step of digitally processing said clock samples with reference to a local reference signal can be conveniently and cheaply implemented using a digital signal down-converter IC (135), for example of a type existing for digital radio receiver implementations. For jitter measurement, the local
- 15 reference signal may be generated by a phase-locked loop (as in Fig. 2). For wander measurements an external reference clock is used (as in Fig. 3).

(Fig. 1)